

## ABSTRACT

A spread spectrum base station receives a spread spectrum signal. The spread spectrum signal includes a reference signal and a message signal. The message signal has message data. The reference signal is detected within the received combined spread spectrum signal. The message data of the message signal is recovered using the reference signal.

A spread spectrum base station produces a message signal having message data. A reference signal is produced. The reference signal is used to recover the message data from a combined spread spectrum signal. The reference signal and the message signal is combined as a combined signal. The combined signal is transmitted as the combined spread spectrum signal.